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RICARDO'S CRITICISMS OF ADAM SMITH

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THE object of the following dissertation is to examine Ricardo's criticisms of the economic doctrines of Adam Smith as set forth in the "Wealth of Nations," with a view to ascertaining to what extent those two celebrated economists actually differed in their conception and treatment of economic phenomena. The criticisms are first examined separately, the opinions of both writers on each particular point of dispute are briefly stated, and an attempt is made to account for the conflict of opinion. Finally the results thus obtained are considered and an endeavor made to formulate the principles underlying them.

The references to the "Wealth of Nations" are to the edition of that work edited by MacCulloch, 1863. Those to the "Principles of Political Economy and Taxation," to Professor Gonner's edition, 1903.

I. The Nature of Value

Adam Smith, as he himself suggests, was strangely conscious of the "extremely abstracted nature" of value, and his exhortation to patience and attention with which he ends the fourth chapter of the first book of his "Enquiry into the Nature and Causes of the Wealth of Nations" is neither misplaced nor uncalled for.

Paradoxical tho it may seem, it is not, however, value *qua* value which is so difficult to apprehend; rather is it "quantity of labor" — the "source" of value — that is enshrouded in mystery and proves so illusive to the understanding.

"The value of any commodity to the person who possesses it," writes Smith, "and who means not to use or consume it himself, but to exchange it for other commodities, is equal to the quantity of labor which it enables him to purchase or command." [1]

This statement is simple if "quantity of labor" were endowed with some distinctive connotation.

The term is therefore explained and it is evident that it conveyed to Smith ideas similar to those which it conveys to the modern economist. "Quantity of labor" is synonymous with "toil," "trouble" — in a word with "the disutility of labor."

Unfortunately, "it is often difficult to ascertain the proportion between two different [2] quantities of

[1] Wealth of Nations, Book I, chap v, p 13

[2] Wealth of Nations, Book I, chap v, p. 14.

labor"; moreover "every commodity is more frequently exchanged for, and thereby compared with, other commodities than with labor." Further "the greater part of people understand better what is meant by a quantity of a particular commodity than by a quantity of labor."

"Hence it comes to pass that the exchangeable value of every commodity is more frequently estimated by the quantity of money than by the quantity either of labor or of any other commodity, which can be had in exchange for it."[1]

But gold, the metal of the English monetary standard, fluctuates in value according as it is more or less difficult to obtain from the mines: wherefore it cannot be an accurate measure of the value of other commodities.

So far the issue is clear.

I. The value of a commodity is equal to the quantity of labor which it can purchase.

II. Labor is an unsuitable medium in which to express value. Gold is more frequently used than any other commodity for that purpose, tho it is not an invariable measure.

At this point Adam Smith states a somewhat startling proposition. "Equal quantities of labor at all times and places may be said to be of equal value to the laborer. The price which he (the laborer) pays must always be the same whatever may be the quantity of goods which he receives in return for it."[2] The pain, the trouble, in a word the disutility, involved in the work of say an agricultural laborer in the year 1600 is identical with that of the average Hodge in

[1] Wealth of Nations, Book I, Chap v, p. 14

[2] Wealth of Nations, Book I, chap v, p 15.

1776 or 1908. In general terms the proposition states that the disutility of labor (in any given grade) is constant. This remarkable assertion furnishes an excellent subject for debate; but so many and diverse are the conditions which determine the disutility of labor that it is well-nigh impossible to treat it with anything approaching scientific accuracy.

On this assumption, however, Smith lays it down that labor is an invariable standard of value. It is the "real" price of commodities; money is their nominal price only.

Adam Smith here turns from the laborer's view of labor, what may be termed the subjective view, to the employer's view of labor, or what may be termed the objective view. "Tho equal quantities of labor are always of equal value to the laborer, yet to the person who employs him, they appear sometimes to be of greater and sometimes of smaller value."[1] It is not, however, that labor alters in value: variations take place in the value of commodities. Because the laborer always "gives up" the same quantity of labor, when he gets much in return commodities are cheap, when little they are dear. To the laborer (and he is the all-important person to Smith), the value of labor is constant; that of other things varies. On the other hand, because the employer always obtains an equal quantity of labor from a given man in a given grade, when he gives little in return, labor is cheap, when much, labor is dear. To the employer, the value of labor varies, while other things remain constant.

The subject is further complicated by the introductions of a "nominal" and "real" price of labor "in this popular sense." The "real" price of labor consists in the necessaries and conveniences of life

[1] Wealth of Nations, Book I, chap. v, p 15

which are given for it; its "nominal" price in the quantity of money.

Value, then, according to Adam Smith has four different connotations according as it is considered from different points of view.

I. *From the Laborer's Standpoint:* —

A. The value of a commodity is equal to the quantity of labor which it "embodies."

II. *From the Employer's (or possessor's) Standpoint:* —

The value of a commodity is equal to —

A. The quantity of labor for which it will exchange.

B. The necessaries and conveniences of life for which it will exchange.

C. The amount of money for which it will exchange.

Smith unfortunately is not consistent in his use of these definitions. By "value" he sometimes means "real" value (I, A); sometimes "nominal value" (II, C); and he frequently confuses the quantity of labor "realized" in a commodity (I, A) with the quantity of labor that commodity will purchase in the market (II, A).

Ricardo's treatment of labor in relation to value, tho highly abstract, is much more definite, much more consistent.

Granted the possession of utility, every commodity has a "real" and an "exchange" value.

The "real" value of a commodity is equal to or is determined by, the quantity of labor, direct and indirect, "embodied" in it.

The "exchange" value of a commodity, except in the case of that which is the subject of a monopoly, is determined by its cost of production, *i. e.*, the ratio

of exchange of commodities is regulated by the amount of labor realized in them.

Labor according to this view obviously cannot have a "real" value, nor therefore, strictly speaking, an exchange value. Ricardo, however, does ascribe a value to labor. The value of labor is equal to the *"real" value* of the conveniences and necessaries consumed in its maintenance.

On this view of value and labor Ricardo bases all his subsequent speculation, and he adheres to it with great pertinacity.

Both Smith and Ricardo are at one in regarding labor as the "source" [1] of value, tho the latter is more accurate in taking cognizance of the economic effort exerted by indirect labor or capital. Ricardo, however, criticises Smith on five points. He maintains in opposition to Smith: —

A. That labor is not a standard measure of value.

B. That corn also varies in value and cannot be a standard measure.

C. That the term "riches" is not synonymous with "value."

D. That labor rises and falls in value not according as a greater or lesser quantity of the necessaries and conveniences of life are apportioned to labor, but according as a greater or less "real" value as realized in economic wealth is thus apportioned.

E. That a rise in the price of labor is not uniformly followed by a rise in the price of commodities.

[1] See Ricardo's Works, edited by MacCulloch, p. 461.

A. *Labor as a Measure of Value*

With regard to labor as a measure of value, it ought to be noted that Smith nowhere definitely states that the quantity of labor realized in a commodity is equal to the quantity of labor that commodity will purchase in the market. When he regarded labor as the real standard of value, he did so from the point of view of the laborer. He was looking at labor subjectively. "Sometimes," says Ricardo, "he (Adam Smith) speaks of corn, at other times of labor, as a standard measure, *not the quantity of labor bestowed on the production of any object*, but the quantity which it can command in the market." [1] Now it is just "this quantity of labor bestowed on the production of any object" that *is* Smith's standard measure. Because generally speaking for an average baker, it requires a given quantity of labor, say x, to produce a loaf of bread, no matter whether that loaf is sold for 3*d.* or 100*d.*, it is always of the same "real" value. Even if it were kept a week and became so stale as to be quite useless, it would still embody a quantity of labor and be of the same real price, tho its nominal price would have fallen to zero owing to absence of demand. In other words, "real" value (I, A, above) would have remained constant; the other values (II, A, B, and C) would have ceased to exist.

This, we take it, is all Smith really meant when he spoke of labor being a measure of value. He quite failed to see that value is essentially a social and not an individualistic conception,[2] and that relatively to a theory of value, the subjective view of labor is of little importance.

[1] Principles, p. 8.

[2] See Seligman's Principles of Economics, chap. xiii, p. 199.

This is not, however, the place to criticize Smith's theories in the light of modern science. Suffice it, then, to say that when Smith was specifically considering "labor" as an invariable measure of value, he did not attach to that term the meaning implied by Ricardo. Unfortunately, as has been already observed, Smith was very inconsistent in his use of the term value, and in later portions of his great work he does confound the quantity of labor realized in a commodity with the quantity of labor it will purchase in the market. In so far, then, as Smith makes this mistake, Ricardo's criticism is just and accurate.

B. *Corn as a Measure of Value*

Because a quantity of corn will not necessarily purchase the same quantity of labor as it embodies, corn equally with labor cannot be an invariable standard of value. "Equal quantities of corn will at distant times" says Smith, "be more nearly of the same 'real value,' or enable the possessor to purchase or command more nearly the same quantity of the labor of other people" — but "even equal quantities of corn will not do it exactly."[1]

Corn is not, then, a perfect standard even in the opinion of Smith. But it so nearly approaches thereto that in the "Wealth of Nations" it is very frequently assumed to be a perfect standard of value.

Smith obviously underestimated the divergence of corn from a standard — because a given amount of it "always feeds the same number of people." The only cause of divergence according to Adam Smith is to be found in the different conditions through which society passes in its progress to opulence or decadence,

[1] Wealth of Nations, Book I, chap. 5, p. 16.

and even then such divergence is not on account of a greater or lesser quantity of labor being necessary to the production of a given quantity of corn, but because of a greater or lesser quantity of corn being apportioned to labor. This peculiar view of the value of corn is always uppermost in Smith's mind and frequently taints his reasoning. In particular it modified unduly his opinions concerning rent and the effects of bounties on exportation.

Ricardo in emphasizing the fact that corn is subject to the same forces that produce variations in the value of other commodities, and that it must, therefore, vary in its own value, pointed out Smith's inconsistency, and corrected his bad logic in placing corn in a category by itself despite its possessing all the characteristics of an ordinary commodity.

C. *Value and Riches*

Smith's inconsistency in his use of the term "value" sometimes results in his confusing that term with "riches." Commodities possess great value where there is either scarcity or comparative difficulty in production. Riches imply plenty and ease in production. A reduction in value is therefore quite compatible with an increase of riches.

Adam Smith, in so far as he failed to distinguish in the applications of his own definitions of value, must, as a necessary consequence, have sometimes confused value and riches.

Again, Smith's "value" sometimes means "total utility." Neither economist had any conception of utility as the term is now understood in economic discussion and inquiry. To Smith it meant usefulness; to Ricardo, capacity to satisfy man's more pressing needs. Much less did either realize the doctrine of

marginal utility, and the relation between marginal utility and marginal cost, tho Ricardo did see that it was production carried on under the most disadvantageous circumstances that regulated the value of commodities. Still it can scarcely be contended that Smith did not, in his own mind, distinguish between economic value and the more general interpretation of wealth in the sense of riches. So elementary and fundamental a conception could not have altogether escaped him. But, as has been remarked, he was lax and unscientific in his use of terms, more particularly when the context, as in his later discussions, is sufficiently clear to reveal quite naturally and unmistakably the point to which he wished to draw the attention of his readers. On the other hand, Ricardo did not make adequate allowance for the difference between his own abstract theory of "real" value and the theories of Smith.

D. *"Real" Wages: Alterations in the Wage-rate*

Ricardo's theory of remuneration led him to ascribe a quite different connotation to a "rise" or a "fall" in the wages of labor from that adopted by Smith.

To the former a "rise" or "fall" in wages meant more or less *real value* as realized in necessaries and conveniences: to the mind of the latter the expressions conveyed one meaning and one only, *viz.*, more or less of the necessaries and conveniences of life.

An alteration in wages, therefore, which in Ricardo would be described as a rise, might in Smith appear as a fall if owing to greater difficulty in production, less necessaries and conveniences represented a much greater value than formerly. Moreover both wage earners and profit earners might receive a greater quantity of riches, while at the same time the wage-

rate might have decreased and the profit rate increased, or *vice versa*.

Where, then, there is apparently a difference of opinion between the two economists regarding movements in wages it is generally only apparent and not real. Both agreed that the " nominal " wages of labor consisted in the amount of money the laborer received. But while Ricardo (who turned his face to the abstract treatment of economic phenomena, and regarded the problems of distribution as being essentially concerned with rates) considered the real wages of labor to be the proportion of *real value*, as realized in commodities, which the nominal wages of labor enabled the laborer to purchase; Adam Smith (who, as the object of his great work would suggest, concentrated his attention on the more obvious conditions of mankind) regarded " real " wages as being simply and solely the actual amount of necessaries and conveniences over which the nominal wages of labor gave the laborer power. Ricardo did not observe this important difference in definition and so argues as if the term " real wages " had the same connotation in the " Wealth of Nations " as he ascribed to it in his " Principles."

E. *Alterations in the Wage-Rate in Relation to Price*

According to Ricardo the prices of all commodities can rise only by reason of a fall in the value of the circulating medium. The main cause of variation in the value of any single commodity, however, is to be found in the changing quantities of labor, direct and indirect, which that commodity from time to time " realizes." In other words a commodity can only permanently rise or fall in exchange value relatively to other commodities by reason of an increase or decrease in the real value of that commodity.

It follows, therefore, that, other things being equal, if the nominal wages of labor rise and a greater real value is appropriated by the laborer, since no greater quantity of labor is exerted in production, the prices of commodities remain as they were before the alteration in wages. Hence, the same real value being produced, if a greater amount is given to labor a correspondingly smaller amount remains for the owners of capital. In other words, when wages rise profits fall, and only in so far as this latter circumstance affects the supply of capital (or indirect labor) will the price of commodities rise or fall. Fundamentally then, in the theory of Ricardo, variations in the rates of remuneration do not in themselves affect price.

According to Smith the "natural" price of a commodity was made up of a "natural" rate of wages, a "natural" rate of profits and a "natural" rate of rent.[1] If, therefore, the amount paid to labor increased, price tended to be increased by a corresponding amount. Smith did not realize the connection between profits and wages, and tho he speaks of a "rate" of profits and a "rate" of wages, it is doubtful whether he quite comprehended the full import of his own terminology. Consequently he did not fully understand that the rates of profits and wages are complementary the one to the other; that as the one rises the other falls by the same amount. True, in Smith, a rise in the wages of labor is attended by a fall in profits. But this latter phenomenon only arises indirectly through the former bringing about a more intensified competition among capitalists, whilst in Ricardo the fall in profits is inevitable and simultaneous with the rise in wages.

[1] This latter doctrine of natural value is plainly incompatible with Smith's former doctrine of value based on labor (see below).

II. The Productivity of Different Kinds of Labor

Tho Adam Smith did not accept the whole of the Physiocratic doctrine of the extreme importance of Agriculture, he did believe, as his opinions on the value of corn testify, that agriculture was, for certain peculiar reasons, the most profitable of employments. Those peculiar reasons centre round the fact that in agricultural pursuits nature works along with man; in manufacture " nature does nothing."

Adam Smith, it is plain, did not realize the exact nature of economic labor in spite of the importance which he attached to it. He did not see that labor, as is so clearly demonstrated by J. S. Mill, consists in moving things, in submitting them to the forces of nature, and that natural forces are at the service of, and are utilized by, the manufacturer as well as by the agriculturist. Further, economic wealth conveyed to his mind the idea of matter in a particular form; he quite failed to see that the process of production is not completed until commodities are also in a particular place at a particular time, — in short, that economic effort is engaged in producing utilities.

Again, the phenomenon of growth as manifested in agriculture seemed to have no counterpart in manufacture. Without discussing the difficult biological conception of growth, it is sufficient in order to refute Smith's contention, to show that the economic labor of the farmer is in essence identical with that of the factory hand. Both are engaged in submitting matter to the forces of nature. True, those forces are different in the two occupations; nevertheless they are natural, and labor consists in bringing matter and natural forces into contact.

Ricardo, tho he did not probe the subject so deeply as Mill, was alive to the inaccuracy of Smith's statement, and in differing from the latter on this point brings sufficient evidence forward to justify his criticism.

Still an early surveyor of the field of economic phenomena as it presented itself to the economist in the middle of the eighteenth century might, we suggest, be likely to exaggerate, as Smith did, the assistance given by nature to the agriculturist in his labor.

In the first place, to the cursory eye it does appear that nature labors far more than man in the production of raw produce. Man prepares the ground and sows the seed; but nature gives the increase. Between seedtime and harvest man does little or nothing. Moreover a manufacturer does not turn out any more matter in the shape of finished goods than he received in the form of raw produce. As has been observed there is no phenomenon in manufacture quite analogous to that of growth in agriculture. And we are of the opinion that in the passage under discussion, it is this conception of " growth " that Adam Smith wished to emphasize. Elsewhere [1] he is more pointed and unmistakably confirms this view. On the other hand, it is equally tenable that Smith's opinions were tainted by his classical learning and his contact with the physiocrats.

In the second place it would not appear so obvious to Smith that nature works in manufacture. In the evidence which Ricardo brings forward in contradiction

[1] Wealth of Nations, Book V, chap. i, p. 313 " Tho a husbandman should be employed in an expedition, provided it begins after seedtime and ends before harvest, the interruption of his business will not always occasion any considerable diminution of his revenue Without the intervention of his labor, nature does herself the greater part of the work which remains to be done. But the moment that an artificer, a smith, a carpenter, or a weaver quits his work-house, the sole source of his revenue is completely dried up. Nature does nothing for him He does all for himself."

of Smith's assertion, mention is made of the steam engine. But steam of course was not generally applied in industry till some years after the publication of the "Wealth of Nations." In the middle of the eighteenth century man did work directly on matter and not, as in Ricardo's time, indirectly by regulating nature's forces.

In this connection it might be pointed out that Smith also regarded the work of soldiers, servants, and the like, as "unproductive" in character, on the ground that their wages were paid out of revenue and not out of capital. Since Ricardo held the same opinion, he does not criticize this teaching, equally erroneous tho it be.

III. Rent

A. *The Rent of Land*

Adam Smith did see, tho not with great clearness, that rent "entered into the price of commodities in a different way from wages and profits. High or low wages and profits," he says, "are the causes of high or low price; high or low rent is the effect of it. It is because high or low wages and profits must be paid in order to bring a particular commodity to market, that its price is high or low. But it is because its price is high or low, a great deal more or very little more or no more than what is sufficient to pay those wages and profits, that it affords a high rent, or a low rent, or no rent at all." [1]

From this quotation it is apparent that Smith had some idea of the true nature of rent. In discussing the rent of mines he enunciates the "whole principle" of rent, to the satisfaction even of his keen critic.[2]

[1] Wealth of Nations, Book I, chap. xi, p 67.

[2] Ricardo's Principles, p. 316.

It is, however, extremely doubtful whether Adam Smith had any real conception of the marginal use of land or of capital applied in either agriculture or manufacture. Tho he vaguely felt that price regulates rent and not rent price, he did not clearly see why it was so. The differential nature of rent escaped him. Had it been otherwise he would not have argued that the rent of land is in proportion to its absolute and not to its relative fertility. Nor would he have contended that corn lands always afford rent had he perceived that it is production carried on under the most unfavorable circumstances that regulates the price both of corn and all commodities. In his treatment of the rent of land it is unquestionable that Smith was led astray by his conception of the stable value of corn. Moreover he entirely overlooked the fact that agricultural production is sooner or later carried on under the action of the law of diminishing return.

That corn lands always afford rent Ricardo curtly denies. On the contrary he maintains that there is in every country land of such a quality that it cannot yield a produce more than sufficiently valuable to replace the stock employed upon it together with the profits ordinary and usual in that country. But setting that contention aside he rightly claims that "it is the same thing if there be *any capital* employed in Great Britain on land which yields only the return of stock, with its ordinary profits, whether it be employed on old or on new land." [1] This by a theoretical argument he judges to be the case. To say that capital is applied in agriculture up to the margin is to state a truism. A most unenterprising farmer would be he who did not use as much capital as he profitably could in the cultivation of his lands.

[1] Principles, p. 314.

Ricardo proceeds to discuss Smith's distinction between the law which regulates the rent of land and that which regulates the rent of mines. Whereas in the one case rent is in proportion to the relative fertility of the mine, in the other case, says Smith, it is in proportion to the absolute fertility of the earth. Ricardo shows, however, that even if all land paid rent, the difference in amount paid by the best land from that paid by the worst land would be in proportion to their relative and not to their absolute fertility. And this is quite true for fertility itself is a relative term.[1]

With regard to the rent of mines Ricardo disputes Smith's assertion that the most fertile mine regulates the price of coal in any given neighborhood, contending, on the contrary, that the least fertile source of produce, as in the case of land, regulates price. The difference here between the two economists is really very slight. Adam Smith did hold that the price of coal was practically identical with the cost of production in the least fertile mine actually being worked,[2] whilst Ricardo would scarcely have disputed the influence of the supply from the richer mines in determining which mine was to be the marginal mine.[3] The truth appears to be that the product of the larger and more fertile mine does influence supply very considerably and therefore affects price. At the same time cost of production in the least fertile mine may rightly be claimed to be the index of price at any given time.

It ought further to be remembered that a portion of the payment tendered for the use of a mine is made

[1] "There is no absolute measure of the richness or fertility of the land," Marshall's Principles, vol i, Book IV, chap. iii, p. 157.

[2] Wealth of Nations, Book I, chap xi, p. 77.

[3] Principles, p. 317.

on account of the depreciation in the value of the land that ensues from mining operations. This fact both economists neglect.

Again, Ricardo criticizes Smith on the point as to whether the rent of the landlord would be increased by a diminished cost of production. Adam Smith, failing to perceive the application of the doctrine of the margin, — that rent can only be affected by influencing marginal production, — claims that under the specified change, the proportion set aside for rent would rise. Ricardo admits this if regard be had to the permanent and ultimate results, but that the temporary and immediate effect would be a great fall in rent. He argues that population would increase, that resort would have to be had to inferior land, and ultimately price and rent would rise. But, emphasizing the fact that rent varies according to relative and not absolute fertility, he claims it would immediately fall by any innovation that led to a diminished cost of production.[1]

Hence he concludes that, generally speaking, the interests of the landlords are at variance with those of the consumer and the manufacturer. Adam Smith expresses the contrary opinion through confusing a high value of money with a low value of corn. Smith maintains that if, owing to importation, the value of corn fell, tho the landlord would get less money in rent, that lesser quantity would purchase a greater number of commodities and a greater quantity of labor than before. Their real wealth, he affirms, would remain the same. This statement, of course, is incorrect and is another instance of Smith's habit of

[1] This, of course, is true, providing, as Ricardo assumes, the improvement is general, *i. e.*, that it affects all agricultural land. See Marshall's Principles, Append. L., p. 835.

regarding the value of corn as a standard. Ricardo's contention that an abundance or scarcity of the precious metals affects all prices alike, whereas an increase or decrease in the value of corn affects only the relative value of corn, is a perfectly valid one.

Ricardo's criticisms of Smith on rent may then be attributed to the following circumstances.

In the first place Smith had no fixed conception of price being regulated by that production which is undertaken under the most disadvantageous circumstances, and that differences in rent therefore arise on account of differences in the conditions under which production is carried on. Hence he contended that all corn lands pay rent. He did not understand that the doctrine of the margin also applies to the employment of *capital* in production, and that land itself may be regarded as a particular form of capital. Ricardo had attained to this knowledge. His theory of rent was important in that it proved that rent did not form a component part of price. He eliminated rent from his theory of value. To Smith there was a " natural " rate of rent just as there was a natural rate of profits and wages, and this " natural rate " of rent formed part of natural value. In other words, as has been noted, Smith really made no distinction in his economic reasoning between marginal and intra-marginal production.

Secondly, unlike Ricardo, Smith did not recognize the action of the law of diminishing return in agriculture. Hence he did not perceive that increased cost of production would eventually result from a more intensive cultivation of old land, or a more extensive cultivation by resort being made to new and inferior soils.

In the third place Smith frequently adopts corn as

a standard of value. This Ricardo never does, maintaining with truth that political economy knows of no commodity that possesses all the characteristics essential to an invariable standard.

B. *On the Comparative Value of Gold, Corn, and Labor in Rich and Poor Countries*

Adam Smith divides his treatment of rent into three parts.

First, he discourses on the rent of that land which always pays rent. Such are corn lands, *i. e.*, those which furnish us with our food supply.

Secondly, there are the lands which supply the raw produce out of which we satisfy our secondary needs — clothing, shelter, and the like. These lands sometimes do and sometimes do not afford rent.

Thirdly, Smith traces the variations in the ratios of exchange of these two classes of commodities as a nation progresses in opulence, and after a lengthy historical inquiry into the changes that took place in the value of silver from the fourteenth to the eighteenth century, concludes that, as a nation progresses in wealth, the value of those commodities belonging to Class II rises relatively to those of Class I. His contention, then, is that as a nation advances to opulence, luxuries and conveniences tend to rise in value as compared with necessaries.

Ricardo in Chapter XXVIII of his "Principles," on the "Comparative Value of Gold, Corn, and Labor in Rich and Poor Countries," enunciates the contrary proposition, that gold is cheaper relatively to corn in a rich than it is in a poor country; that as a nation grows richer it becomes, more and more, increasingly

difficult to obtain the food supply, and that consequently corn tends to rise in value relatively to other things. In a word, agriculture is carried on according to the law of diminishing return, while in manufacture no such law operates.[1] His argument is chiefly composed of somewhat disconnected attacks on certain passages from Smith's "Digression on the Value of Silver," which Ricardo isolates from their context, and generally construes in a sense different from that intended by their author.

This latter consideration effectually accounts for the differences of opinion between the two economists on matters of detail.

It has been suggested, however, that Ricardo failed to grasp the particular object of Adam Smith's argument.[2] And if his blunders in the above mentioned chapter are taken as a guide, the opinion is well founded. It is at least possible, however, that he not only comprehended the drift of Smith's digression on the value of silver, but in addition attempted to controvert the conclusion therein set forth. How else can one account for the brief expression he gives of Smith's opinion and his own opposing one, in the following sentence. "I have endeavored to show," he says, "that it (the value of gold) will be low in rich countries and high in poor countries; Adam Smith is of a different opinion; he thinks that the value of gold estimated in corn is highest in rich countries." [3]

[1] We are aware that this statement is not strictly true, and that it is not found in Ricardo Both the laws of diminishing and increasing return operate in agriculture and manufacture, but, whereas in the former the balance is in favor of the law of D R, in the latter it is in favor of the law of I R While Smith tacitly assumed both agriculture and manufacture to be carried on according to the law of constant return, Ricardo tacitly assumed that law to operate in manufacture only.

[2] Principles, footnote, p. 366

[3] Principles, p. 267.

As for the diametrically opposite conclusions at which the economists arrived, that is readily explained when the assumptions underlying the discussion are considered. Again one finds a good example of how one term conveyed to the mind of each writer a very different connotation.

In Adam Smith's writings, a rich and opulent country is one which has a plentiful supply of the necessaries, conveniences, and luxuries of life; one, that is, in which there is essentially a plentiful supply of subsistence. In Ricardo, on the other hand, a rich country is one which is very populous, whose lands are being more and more intensively cultivated to meet the ever growing demand for food, and where subsistence tends to become dearer and dearer.

Again, Adam Smith failed to observe the action of the law of diminishing return in agriculture; but he was alive to the importance of importation, tho he rightly considered that cost of transport and insurance would tend to render corn dear in the importing country. Ricardo, on the contrary, laid perhaps undue stress on the law of diminishing return, and tended, in this and like discussions, to minimize the importance of the importation of food from foreign territories. If, of course, permanent and ultimate conditions be considered, assuming that is, that all lands possibly available are being worked according to the law of diminishing return, there is much truth in Ricardo's argument.

Adam Smith's view of the stable value of corn over long periods is important in this connection, since it further helps to account for the difference between his own and Ricardo's opinion on this subject. Corn, he holds, remains constant because population or demand for corn is regulated by the supply of corn. The one

therefore tends to balance the other. To Ricardo, as a country becomes richer, corn inevitably becomes dearer and dearer owing to the action of the law of diminishing return.

IV. Profits

A. *The Relation between Profits, Wages, and Capital*

Ricardo's criticism of Adam Smith's doctrines concerning profits in relation to capital may be conveniently divided into two parts.

In the first place there is the question of the effect on profits of the accumulation of capital, with which, of course, is involved a consideration of the relationship between profits, capital, and wages.

Secondly, there arises the inquiry as to how far alterations in the market rate of interest can be regarded as indicating like alterations in the rate of profits.

With regard to the accumulation of capital Adam Smith's teaching may be briefly summarized. In relation to the earlier social stage we need consider nothing but the amount of labor employed in the production of an article as determining its exchange value, but in more advanced periods price is complex, and consists in the most general case of three elements, — wages, profits, and rent. Wages are the reward of labor. Profit arises as soon as stock, being accumulated in the hands of one person, is employed by him in setting others to work, and supplying them with subsistence and materials in order to make a gain by what they produce. Profits depend in the main on the amount of capital employed, altho the rate of profits alters with the increasing, stationary, or declining state of society. The increase of stock, since it

involves competition among capitalists for labor, raises wages and lowers profits. Conversely, a diminution in the amount of stock lowers wages and raises profits.

In Book III of the "Wealth of Nations" Adam Smith outlines what he conceives to be the natural progress of a nation in opulence. In the earlier stages, agriculture is the only or chief occupation; next small towns begin to arise and with them appears the growth of manufacture and a home trade between the country and the towns highly beneficial to both sets of producers. Finally, capital "overflows" into a foreign trade of consumption, or an international carrying trade. Agriculture is a more productive occupation than manufacture, and manufacture than the carrying trade. Capital, then, is only employed in a carrying trade because it exists in such quantity that a part of it cannot be profitably employed in agriculture, manufacture, or the home trade.

To both of these conclusions, namely: —

(1) That as capital accumulates profits tend to fall, and

(2) That capital "overflows" into the carrying trade, Ricardo urges objections. He holds the contrary opinions: —

I. That profits cannot fall except by reason of a rise in wages, and wages cannot rise unless the necessaries and conveniences of life which support labor rise in "real" value, *i. e.*, unless a greater "real" value is paid to labor.

II. That capital is engaged in the carrying trade because certain "conveniences and ornaments of life" can be better obtained in that way

than by home manufacture or cultivation, and not because the said capital cannot be profitably employed at home.

With regard to the first of these propositions, Ricardo's theory is that the accumulation of capital gives rise to an increase in population which involves an increased demand for food. As additional food is only procured at greater cost, wages rise and profits fall. The cause, therefore, of the fall in profits is the increase in wages due, not to the competition of capitalists in their search for labor as suggested by Smith, but to the increased cost of food.

Ricardo admits Smith's conclusion if regard be had to the short period; but since both economists were considering ultimate and permanent conditions the difference of opinion remains. It can only be satisfactorily explained by a consideration of the assumptions underlying the arguments.

A. Ricardo takes it for granted that an increase of capital leads to an increase in population. He neglects any possible rise in the standard of comfort.[1] Smith, tho in a former part of his work he acknowledges "that the demand for men necessarily regulates the supply of men, quickens it when it goes on too slowly, and stops it when it advances too fast," [2] entirely overlooks this doctrine in discussing the problem under review.

B. Ricardo postulates the law of diminishing return in agriculture. Increase of population means a need for an increased food supply and this, on account of the operation of the fore-

[1] Ricardo elsewhere acknowledges the possibility and desirability of a rise in the standard of comfort, consequent on an increase of capital See Principles, p 74

[2] Wealth of Nations, Book I, chap. 8, p 36

going law, can only be obtained at increased cost. Adam Smith recognizes no such law, and consequently no such alteration in the price of food as the action of that law tends to bring about. Had the latter then been quite consistent he would have argued that accumulation of capital leads to increased population, and tho wages will temporarily rise, they will ultimately fall again to their former level. The difference of opinion, then, would have been attributable to Ricardo's recognition of the law of diminishing return and Smith's neglect of it.

The second proposition is based on Ricardo's valid contention that there can be no limit to demand for luxuries, nor therefore to the profitable employment of capital in producing such luxuries. Adam Smith, tho he elsewhere [1] refers to the illimitable nature of demand, inconsistently neglects such a consideration in discussing capital in relation to the carrying trade. It is not improbable that his *a priori* assumption of the right or "natural" order of things prejudiced his opinion on the subject of profits tending to a minimum with the progress of opulence, and the possibility of a redundancy of capital. On the other hand, Smith frequently catches glimpses of great economic truths, of which, however, he conceives neither the full meaning nor the real importance. The identity of production and consumption would seem to furnish a good example of this pardonable weakness. The possibility of a general over-production with which the problem under discussion is intimately connected, is a question that has puzzled many economists. Still we are inclined to agree with Ricardo, that as there

[1] Wealth of Nations, Book I, chap xi, pp 75–76.

is no limit to demand, there can be no limit to the profitable employment of capital, and that therefore "when merchants engage their capitals in foreign trade or in the carrying trade, it is always from choice and never from necessity." [1]

B. *Profits and Interest*

Tho Adam Smith recognized that profits were composed of certain elements, he did not enter into a discussion of the different forces which govern those several elements. Hence his treatment is very general and inconclusive.

On the bald assertion that "wherever a great deal can be made by the use of money a great deal will commonly be given for the use of it, and that wherever little can be made by it less will commonly be given for it," [2] he attempts to trace the alterations that have taken place in the rate of interest from the time of Henry VIII. His conclusion, based on the assumption that the legal rate followed and did not precede the market rate of interest, is that the legal rate having gradually fallen, the rate of profits must have fallen also. This result is in agreement with his opinion on the effects of the accumulation of capital on the rate of profits.

Ricardo, tho his treatment of profits is as unanalytical as Smith's, refuses to accept the latter's assumption that the legal rate of interest is a guide to the rate of profits. He virtually denies that the legal rate followed the market rate, and maintains that, tho this latter rate would be more reliable than the former, it is unfortunately not procurable. The legal

[1] Ricardo's Principles, p 277.

[2] Wealth of Nations, Book I, chap. ix, p. 40.

rate of interest, he holds, is of little value, since it was to a large extent inoperative owing to the ease of evasion.

The market rate of interest is, generally speaking, governed by the rate of profits. While Ricardo affirms this, he holds that "the market rate of interest is subject to temporary variations from other causes" [1] than those which affect the general rate of profits. For instance, when price falls from an abundant supply, the rate of interest tends to rise owing to credit operations.[2] Again, funded property cannot be regarded as a steady criterion of the rate of interest.[3] Moreover, government pays different rates for different securities.[4]

Ricardo then advances a little beyond Smith in showing that the rate of interest is only an element in the general rate of profits, and that the former is subject to forces which do not operate on the latter. Apart from this consideration, however, there is little importance in the discussion. Ricardo's greater knowledge of actual business affairs and of financial matters in particular probably led him nearer the truth than Smith.

V. Bounties

Adam Smith objects to bounties on exportation and high duties on importation on the following grounds:—

1. They force trade into less advantageous channels than it would otherwise enter.
2. They force trade into positively disadvantageous channels because trades receiving bounties are necessarily losing ones.

[1] Principles, p 282
[2] Principles, pp 282–283
[3] Principles, pp 282–283
[4] Principles, pp. 282–283.

3. They do not encourage the production of corn because only the nominal price of corn is raised, and not its "real" price, and as this results in a rise in wages, all commodities are equally raised in price.
4. By lowering the value of silver all industry is depressed and foreign competition invited.
5. Instead, therefore, of advancing they retard the cultivation of land.

With the first and second of these objections Ricardo cordially agrees. He, however, takes exception to the third, fourth, and fifth.

In the first place, with regard to objection number three, he denies that the money price of corn regulates wages and through them, the price of all commodities. On the other hand, he affirms that the "real," and therefore the exchange, value of corn would rise, not only temporarily from increased demand, but permanently owing to the increased demand being supplied by the cultivation of inferior soils. Contrary to Smith, then, Ricardo is of opinion that bounties would benefit farmers and landlords much more than manufacturers, since corn would sell at a permanently higher price, whilst manufactured goods would be only temporarily raised in price. Again, he maintains that even if wages did rise, this would not lead to a rise in the price of commodities, but rather to a fall in the rate of profits.

Secondly, with regard to objection number four, Ricardo contends there cannot be permanently a high price on all commodities owing to foreign competition.

Thirdly, since there would be a permanent rise in the price of corn, the cultivation of land would be advanced and not retarded, owing to the increase in rent and the consequent increase of capital devoted to agricultural pursuits.

These opinions of Ricardo are undoubtedly the correct ones. They are, one can quite well see, the result of the application of a clear-cut if not elaborate theory to the solution of an economic problem. The dissimilar views at which Smith and Ricardo arrived are mainly owing to three considerations.

I. In the first place Adam Smith's conception of the value of corn together with his neglect of the operation of the law of diminishing return in agriculture prevented him from seeing that the "real" as well as the "nominal" price of corn would rise from an increase in the demand for corn. He denied, of course, that a bounty on the exportation of corn did lead to an increase in demand, since he held that what increase might result from the foreign trade in that commodity, was wholly at the expense of the home market. This argument Ricardo neglects, tho be it said it affects little the ultimate considerations of the effects of a bounty. For it should be remembered that the demand for corn is inelastic. Therefore an increase in the foreign trade in corn would lead to a greater total demand rather than to an increase in the proportion of foreign to home demand.

II. Secondly, Ricardo's theory of value led him to distinguish carefully between alterations in the rates of remuneration and alterations in price. There is really no connection between the former and the latter. With this consideration clearly understood and ever in mind Ricardo was always on the alert to bring to light the occasions on which Smith's less fixed and less consistent theory of value led him to assert or imply the contrary proposition.

III. In the third place, Ricardo invariably fixed his attention on permanent and ultimate conditions. He always "pushed" his theories as far as they would go. His neglect of the temporary and accidental reached in some cases, it may be contended, to the point of error. Smith as frequently considers the temporary as the permanent. In his discussion on bounties he sometimes postulates the former, sometimes the latter, and invariably he has in mind what he considers to have been the effects of bounties in the past. Even when he does consider permanent conditions it is doubtful whether he went as far as Ricardo in his conception of the ultimate. While he saw for example that a reduction in the value of silver led to increased prices, and therefore offered an invitation to foreign competition, he did not trace further the effect of the acceptance of this invitation in the subsequent relevelling of prices.

VI. Taxation

A. *The Tax Fund. Gross and Net Revenue*

Smith holds that "the riches and so far as power depends on riches, the power of every country must always be in proportion to the value of its annual produce, the fund from which all taxes must ultimately be paid." [1]

Ricardo rightly argues that it is the net revenue and not the gross revenue that is the all important fund, out of which taxes are paid. Theoretically the net revenue of a society *is* the main consideration in

[1] Wealth of Nations, Book II, chap v, p. 166.

discussing the fund on which taxes ought to fall. It is not a good and profitable expedient to tax capital.

It ought to be noted that Ricardo, as he himself suggests, is conscious of the advantage of a large population, even if no more net revenue were produced by it than by a smaller population. But "it is not on the grounds of any supposed advantage accruing from a large population, or of the happiness that may be enjoyed by a greater number of human beings, that Adam Smith supports the preference of that employment of capital which gives motion to the greatest quantity of industry, but expressly on the ground of its increasing the power of the country."[1] This error on the part of Smith in gauging the ability of a country to pay taxes by the amount of gross revenue arises from his erroneous opinion that the wealth of a country depends on the quantity of productive labor employed and that certain occupations employ more productive labor than others.

Ricardo does not definitely attack this position tho he does not grant it. He merely denies the relevancy of the argument so far as the tax-fund or power of the nation is concerned.

B. *The Incidence of a Tax on the Produce of Land*

Taxes on rent fall altogether on the landlord. Taxes on the produce of land are, according to Smith, in reality taxes on rent and are, therefore, also paid by the landlord.

Ricardo agrees that a tax on rent falls on the landlord, but he holds the contrary opinion regarding taxes on the produce of land. Taxes on raw produce, he maintains, are not similar in their incidence to taxes

[1] Principles, p. 337.

on rent. A tax on raw produce increases the price of raw produce and falls on the consumer.

Ricardo ever had in mind the theory that the forces which determine the value of a commodity, particularly of an agricultural commodity, must be studied at the margin. Hence, he saw clearly that a tax on raw produce, since it really is an addition to cost of production at the margin, *i. e.*, on the land that pays no rent, must inevitably increase price.

Smith in so far as he failed to distinguish between marginal and intramarginal production must, as a necessary consequence, have failed to trace accurately the incidence of a tax on the produce of land.

The difference of opinion, then, regarding the incidence of such a tax is entirely due to Ricardo's insistence on the doctrine of the margin and to Smith's neglect of it. Curiously enough Smith's reasoning on the incidence of a tax on malt is entirely in accord with Ricardo's view of taxes on *all* raw produce.

C. *Taxes on Wages and Necessaries*

Ricardo's teaching in brief is that a general tax on wages raises wages and lowers profits. It is similar to a tax on necessaries in that it raises wages. But whereas a tax on necessaries increases the price of necessaries and is paid partly by the receivers of profits and in part by the rich consumer, the former tax falls wholly on the receivers of profits.

Adam Smith is in agreement that a tax on wages raises wages. But, contrary to Ricardo, he holds the view that as a result of the rise in wages, the price of manufactured articles rises and the tax is shifted to the consumer, while in agriculture the rent of the landlord tends to fall.

The additional wages paid by manufacturers will occasion a rise in the price of manufactured goods, and will therefore fall on the consumers of those commodities; the additional wages paid by farmers will ultimately fall on the landlords who will receive a diminished rent. Smith also holds that a tax on necessaries is virtually a tax on wages and has the same incidence. He therefore condemns taxes on wages and necessaries.

Ricardo himself hits on the main cause of difference between his own opinions and those of Smith. He points out that Smith, as has been already stated, overlooked the fact that there is capital employed on land which does not yield rent, and that it is the cost of production on the land which does not yield rent that regulates price. Hence, of course, a tax on wages could not fall on rent. A tax on necessaries could only fall on rent in so far as the receiver of rent consumed necessaries. It would also fall on the receiver of profits both in so far as he consumed necessaries, and, in addition, in so far as it raised wages. Similarly a tax on wages falls entirely on the profits of stock. " It does not entitle the master manufacturer to charge it with a profit on the price of his goods, for he will be unable to increase their price and therefore he must wholly and without compensation pay such a tax." [1]

This criticism, then, can be attributed to two circumstances: —

> First, it is under the conditions that govern marginal cultivation that the labor which regulates price is carried on. Ricardo, tho he never uses the terms " margin " and " marginal," yet always entertains fixed ideas, very similar to those which the said terms suggest to the

[1] Ricardo's Principles, p. 209

modern economist. More particularly is this true when he is considering problems connected with the cultivation of land. Adam Smith had no such fixed conception.

Secondly, Ricardo was strict in his adherence to the doctrine that the rates of remuneration have no real connection with price. It is because he saw this so clearly that he refused to identify himself with Smith's outcry against taxes on wages and necessaries, and was personally indifferent as to which tax the government might be pleased to impose.[1]

VII. Colonial and Foreign Trade

Adam Smith's teaching under the heading of "Treaties of Commerce" may be briefly summarized. Treaties of Commerce were arranged in order to enable a country to sell more than it could buy, and thus to secure a favorable balance of trade. They are disadvantageous to the favoring country and advantageous to the favored country. The Methuen Treaty by which reciprocity was established between England and Portugal in wine and woollens is set forth, and is held to substantiate this opinion.

Ricardo in part accepts Smith's conclusions, and by substituting England and a colony in the place of Portugal and England, he contends that a mother country can be benefited at the expense of a colony.

This is the opposite of Smith's doctrine, who maintains that a monopoly of the colonial trade leads to high profits in that branch of trade, that more and more capital is attracted to it, and that profits tend

[1] It should be noted that for the sake of argument Ricardo practically assumes the wages of labor to be at the "physiological minimum," and thus unable to bear any reduction

to rise in all branches of British trade. Prices consequently rise and the foreign competitor has an advantage in those trades in which England does not possess a monopoly.

Ricardo, of course, holds this reasoning to be fallacious since, ever true to his theory of remuneration, he affirms that far from high profits being a cause of high price they do not affect price at all. He does, however, allow that there will be a worse distribution of the general capital and industry, and, owing to diminished supply, the prices of commodities will be raised. At the same time no change from one foreign trade to another, or from a home to a foreign trade can affect the rate of profits.[1] Once again do we find the more exact and scientific theory of remuneration as taught by Ricardo leading him to differ from Smith.

Again, Smith held that the value of a foreign trade to a country was inferior to that of a home trade because equal capitals would employ a less amount of productive labor in the former than in the latter. The element of time, too, was important. The longer period during which the capital was returned in foreign as compared with home trade further rendered foreign trade a less productive form of economic activity.

Ricardo did not accept this view. He held that tho only one capital instead of two capitals might be replaced by a foreign trade, the replaced capital would be equal in amount to the two capitals which would have been employed at home in the work of exchanging had no foreign trade been engaged in at all. The amount of productive labor employed, however, cannot be a criterion of the value of foreign trade. The important consideration is whether wants are satisfied or not. But without discussing further this question

[1] Principles, p. 332.

we believe Ricardo's objection to be a valid one. Just as Smith erred in his treatment of the varied forms of economic activity as exhibited in agriculture and manufacture, the retail and the carrying trade, by erecting the standard of "productive labor employed," in like manner did he fall into error in his discourse on foreign trade.

Finally, Ricardo's whole conception of foreign trade is more advanced than Smith's. The former was probably the earliest theorist to state the doctrine that comparative costs lie at the root of international trade. Furthermore, he insisted that if prices rose generally in a country, this would not alter the ratios in which commodities would exchange with one another. Money itself being the only commodity affected, its comparative cost having fallen, its exportation would follow until such time as the currency was restored to its normal value. Smith had no conception of the doctrine of comparative costs, nor did he fully appreciate, nor always allow for, the effects on price of a foreign trade in bullion.

VIII. Summary and Conclusion

We have examined Ricardo's criticisms of Adam Smith. The views of each writer on the matters of dispute, or apparent dispute, have been briefly set forth, and an attempt has been made in each case to account for the difference of opinion. It now remains to reduce to a few principles the results at which we have arrived.

And at the outset let it be said that tho much of what Ricardo says with regard to the subjects on which he differs from Adam Smith is true, there are instances in which either a more thoro study of the

context, or a more liberal interpretation, would have rendered his observations unnecessary. He did not, for example, read with sufficient care Smith's confusing pages on labor. Had he done so he would have stated the latter's view with more generosity. He would, and with justice, have complained of Smith's inconsistency in the use of terms; it is doubtful, however, whether he would have attempted to prove that labor is not a standard measure of value. At all events he would have shown that his idea of "labor" was very different from Smith's.

Had he been a more painstaking critic he would not have ascribed a new connotation to terms which he had adopted from the "Wealth of Nations" without drawing the attention of the reader to the alteration in meaning. Least of all would he have re-established these essentially new terms in Adam Smith's argument. Such treatment, however, Ricardo metes out to "real" wage, "rise" and "fall" of wages, a "rich" country.

Again, Ricardo frequently fails to observe that the assumptions which underlie an argument in the "Wealth of Nations" are quite different from the assumptions which he postulates in his "Principles," when attempting to combat the same argument. In his discussion of the rent of land, of the comparative value of gold, corn, and labor, of bounties, etc., he invariably insists on the importance of the action of the law of diminishing return. Nowhere does Adam Smith speak of that law. Yet curiously enough Ricardo argues as if Adam Smith, like himself, always assumed it. Still more amazing is it that he never in any single passage even indicates that he is aware of this striking fundamental difference between his own writings and those of his great predecessor. Again, in his discussions of the effects on profits of the accu-

mulation of capital, Ricardo fails to see that whereas he assumes that an increase of capital leads to an increase in population if there is no rise in the standard of comfort, Smith makes no such assumption. Had he been cognisant of these initial differences some of his arguments against Smith's opinions would have been characterized by emendation rather than negation.

We do not mean to imply that Ricardo was a destructive rather than a constructive critic. One of the outstanding features of the "Principles" is the manner in which subjects are introduced by means of quotations from the "Wealth of Nations." Indeed his treatise is founded on that of Smith. It is on Smith's involved treatment of labor that Ricardo builds his theory of "real" and "exchange" value, it is on Smith's theory of wages that he founds his so-called iron law; it is on the teachings of Smith that he bases his own chapters on Taxation and Currency. The germ of much of Ricardo's economic doctrine lies hidden in Smith's great work. We there find, tho but dimly evidenced and imperfectly expressed, the idea of value based on labor, of remuneration being concerned with rates, of rent. These "ideas" are, however, wrapped up in much that is general and inconclusive and a good deal that is inaccurate and inconsistent. Ricardo makes these truths which Smith, as it were, vaguely hints at, his central doctrines. He exhibits them in a clear light, he restates and co-ordinates them into a well-defined theory of value which, through all his discussions, he applies with the greatest consistency.

That theory may be divided into three main parts. First, there is the doctrine of abstract "real" value being regulated under a competitive system by the

amount of labor, direct and indirect, applied in production; secondly, that it is the labor applied at the margin or under the most disadvantageous circumstances that indexes value and that rent consists of the excess of total real value over and above that produced at the margin; thirdly, the annual amount of production represents a certain quantity of "real" value and that this real value is divided into wages and profits, the rates of which necessarily vary inversely. These three propositions form the base of Ricardo's economic system, in agreement with which he fashions all his discussions.

Smith had no such "sheet anchor." He first constructs an indefinite theory of value based on labor alone. Later he outlines another theory of "natural" value, which, he holds, is made up of certain natural "rates" of wages, profits, and rent, and he discusses the forces which govern these rates. In his treatment of wages one finds the elements both of Ricardo's "iron law" theory and of Mill's wage-fund theory. Of the real nature of rent he had but an inkling. His treatment of profits is similarly vague. What Smith did not, and what Ricardo did, see clearly was first, that the labor which regulates value is that which is carried on under the most disadvantageous circumstances and that therefore rent can have nothing to do with the determining of price, and secondly, that the rates of profits and wages are essentially complementary, the one to the other, and consequently that alterations in these rates do not in themselves affect price.

These two considerations, as we have attempted to show, account for several of Ricardo's criticisms. Sometimes the one, sometimes the other, is sufficient to explain the difference of opinion.

The first is important in leading to Ricardo's criticisms of Smith's teaching regarding: —

(1) The Rent of Land.
(2) The Value of Corn.
(3) The incidence of a tax on the produce of land.

The second led to his contrary conclusions regarding: —

(1) Alterations in the wage-rate in relation to price.
(2) The relation between profits, wages, and capital.
(3) Bounties.
(4) Foreign trade.

Both considerations enter into the cause of the difference of opinion on the incidence of taxes on wages and necessaries.

In so far as Ricardo applied these theoretical conceptions in the solution of deductive economic problems, he made a real advance beyond the results achieved by Adam Smith's indefinite treatment of economic phenomena. In formulating a more consistent theory and substituting in the place of the vague generalization so characteristic of the "Wealth of Nations," he led the way to the exact and logical treatment the science received at the hands of J. S. Mill and his successors, even altho the highly abstract nature of his discussions brought about the great movement in favor of the historical method.

Again, Ricardo's challenge of Smith's view of the value of corn leads to certain differences of opinion. Adam Smith considered the value of corn to be practically constant over long periods. He held that the

demand for corn regulated the supply of corn and the supply regulated the demand in that only a given population could be maintained by a given amount of corn. In this view Smith is, of course, quite correct. The value of corn *is* more constant over a long period than the value of other commodities, including the precious metals and money. From the point of view of strict theory, however, Ricardo's contention that not even corn can be considered a standard of value is incontrovertible. In those purely theoretical discussions on the effect of a bounty on exportation, and on the changes which take place in the comparative value of gold and corn as a country progresses in opulence, Ricardo's conclusions are more accurate than those of Smith. Adam Smith's neglect of the law of diminishing return in agriculture, to which reference has already been made, is also important in this connection. Again must Ricardo's opinion be respected where that law is assumed by him in discussing theoretical problems in which references to likely changes in the value of corn are made; tho in actual practice its operation in tending to raise the price of corn seems ever indefinitely to be postponed owing to the widening of the market and to the modern facilities for transportation, importation, and exportation.

Again, as we have observed, Ricardo oftener than not concerned himself with permanent and ultimate rather than with temporary and immediate conditions. Smith as often considers the former as the latter. But even when he does consider the permanent, he does not "push" his theories as far as Ricardo. And this consideration leads to our final and concluding observation. If we set aside those criticisms which are the result of misunderstanding or are directly

owing to differences of connotation accompanying co-incidence of denotation, if we pass over without further remark those which are largely due to Ricardo's none too generous interpretation of certain of Smith's passages, we find that the remaining and most important criticisms in which Ricardo makes a real advance on the teaching of Smith, are mainly the result of the very different attitude he assumed towards economic phenomena as compared with Adam Smith, and indeed, with all his predecessors in the realm of economic thought and investigation. His method was essentially the abstract deductive method, tho the generalizations which form the base of his reasoning are often the result of a careful inductive process. As Bagehot well points out,[1] Adam Smith did not seem aware that he was dealing with an abstract science at all. His treatment often approximates to the abstract on account of the narrow view he took of the nature of man in his economic writing. Ricardo on the contrary builds on the abstraction of the economic man. He formulates the abstraction of "real" value. He develops a highly abstract theory of remuneration, and an equally abstract theory of rent, during which process he exhibits the elements of the doctrine of the margin. Finally, armed with abstraction, he investigates the domain of foreign trade, and formulates the doctrine of comparative costs, which received such careful and elaborate development at the hands of J. S. Mill. Adam Smith, on the other hand, is inductive and deductive in turn, now developing a theory from the observation of phenomena, anon illustrating an assumption or sweeping generalization by an appeal to fact. He seldom, however, travels beyond the concrete. His work, tho monumental

[1] The Political Economy of Adam Smith, Walter Bagehot.

and invaluable, is nevertheless of too general a character to be of permanent and lasting *scientific* worth. It is scarcely, then, matter for surprise that when Ricardo read the "Wealth of Nations" he should have found so much with which to disagree, so much to qualify and emend, yet withal so much to exalt and appraise.

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